



MISSOURI BOTANICAL GARDEN

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GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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— CACTUSES.—One of the nicest gardens near Paris is that at Poissy, on the river Seine, belonging to M. LORENZO COURANT, a real amateur of plants, who has been very successful in the hybridising of Cactuses and Gladioli. His place is on the site of an old Commanderie des Templiers, destroyed under PHILIPPE LE BEL, and made by him into an abbey. In the garden are still to be seen the remains of the "oubliettes," or dungeons, which seem in olden times to have been indispensable in any large place, whether a castle,

NICLE.

[DECEMBER 14, 1878.

prison, or even a monastery. With this exception there is very little left of the old buildings. Attached to the house is a conservatory of good size, with some good specimens of Tree Ferns, Palms, Adiantums, &c. The conservatory unfortunately is completely bare of climbing plants or hanging baskets, so that it looks a little bare. Facing the conservatory is a good sized "jardin Anglais," with some fine trees, an *Abies Pinsapo* 18 metres high, a Cedar of Lebanon, only thirty-five years old, planted by the proprietor himself. This tree is of a very large size, and looks a great deal older. There is a good collection of Conifers, all in good health. From this we pass into the kitchen and flower garden, where are the houses. Here are several large beds of splendid Gladioli: most of them very good. Fine bushes of *Tritoma Uvaria*, ten to fifteen fine plants of *Bambusa aurea*, some good tuberous Begonias, a collection of Vines, comprising forty varieties, several houses containing Camellias, Azaleas, &c.; and last a lean-to house, with a collection of about a hundred Cactuses. They are planted out in this house and trained against the wall; they seemed very vigorous, and we were told they bloomed very freely. M. COURANT began by crossing *speciosissimus grandiflorus* with *Hookerii*, and kept on crossing the offspring from these. The flowers are most magnificent, and of a very large size. The following are the best amongst the lot:—

Amabilis perfecta, good shaped flower, flesh-pink, with the interior of the corolla cherry-coloured.

Aurantiaca superba, very brilliant, dark orange.

Aurore boreale, brilliant yellow sepals, corolla cherry coloured.

Boule de Feu, globular-shaped flower, yellow sepals, violet corolla.

Marguerite Bock, very dark pearly lilac.

Claire Courant, flesh-coloured.

Courantii, pure white, outside petals of lemon-yellow.

Eblouissant, very fine, purple-tinted violet.

Ganymede, open flower, pinkish pearly lilac; corolla of a brilliant cherry colour.

Hannah Wilson, perfect flower, pearly light lilac.

Madame Lemarchand, velvety pink; corolla white.

Rosea splendidissima, velvety pink; corolla white.

Miss Richardson, perfect shape, bright lilac.

Alice Rosciand, red-orange.

Jules Simon, dark orange, edged with velvety-purple lilac.

Madame Simon, middle-sized flower, light carmine-lake, inside of corolla white.

Triomphe de Poissy, tips of petals bright orange, edged with violet, pearly white.

Thiers, middle-sized flower of perfect shape, numerous, petals red-orange, edged with dark violet.

Madame Courant, large flower, velvety pink.

These are really worth growing, and M. COURANT offers cuttings to any one who may wish them. They are grafted very easily, and have been grown in several places in France with success.

VIOLENT SNOWSTORM



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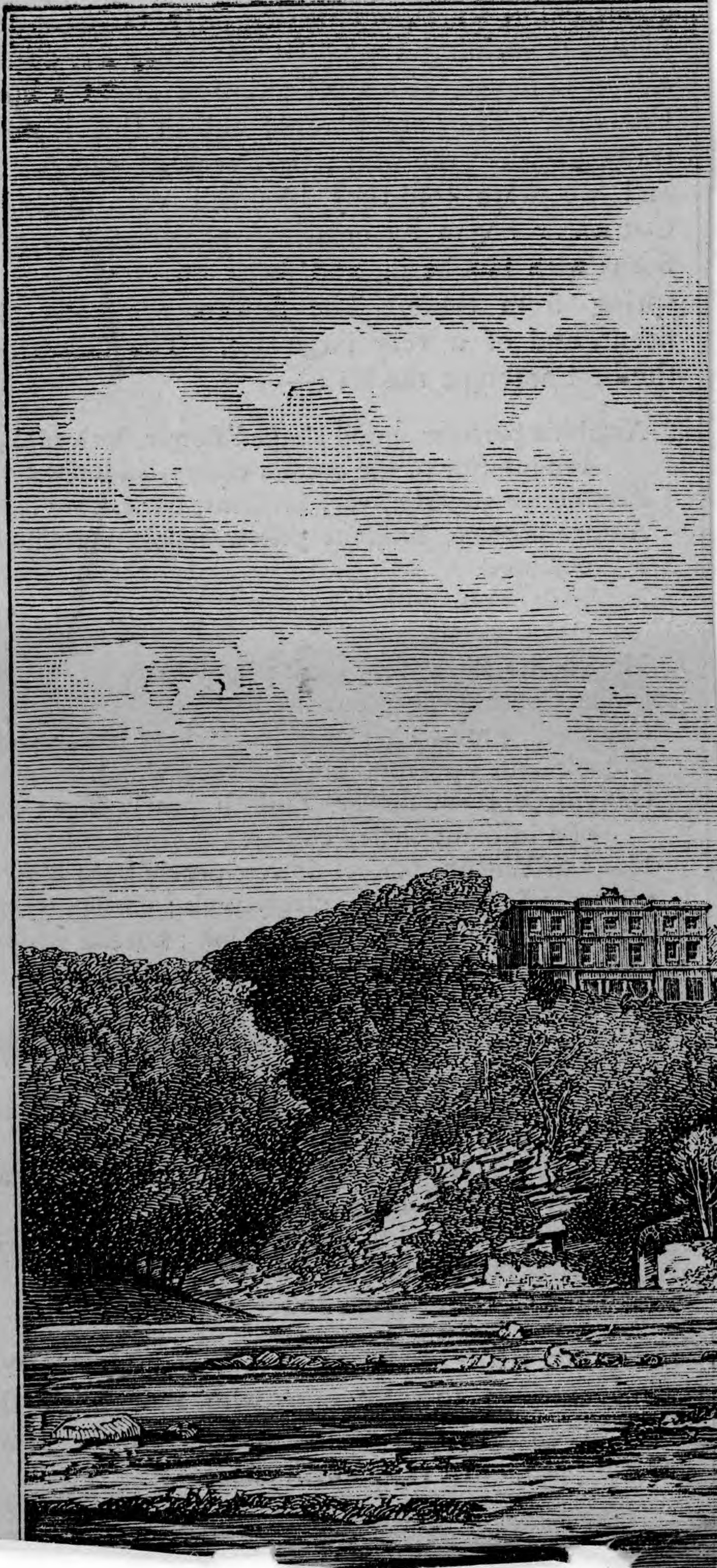
been packed in the most careful manner, as they are as fresh-looking and whole as if just cut from the plant. There are many decorative purposes peculiar to the Christmas season to which these fine plumes could be put, and their cost is not so high as might have been expected, seeing they have come from a far distant country.

— *SCUTICARIA STEELII*.—A well-grown plant of this beautiful Orchid is now in flower in the col-

gues them as food for hearts and livers.

— *CIMICIFUGA RACEMOSA* (see p. 557).—Some time since we gave a woodcut of the stem and seed-vessels of a plant under the above name. We have been reminded that the plant represented was *C. americana* and not *C. racemosa*. We were led into

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982-1230

Phylloactis



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George Engelmann

Large
Phylo

earlier sheets (containing that exposition) had been in my possession, or when the
before my paper was read at the Royal Society. It is obvious, therefore, that in these writings I can have in no degree
profited by Dr. WATTERS' thesis, which was not published until some months after the appearance of my memoir in the Philosophical Transactions. And whatever I have since written on the subject has been but a

* We very willingly accept this communication.



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Cerco
Phylloactis

982-992

discussed,—was read before the Royal Society, and was published in the "Philosophical Transactions" for that year; as well as of the fact that the same doctrine was explicitly set forth in the third edition of my "General and Comparative Physiology," published in 1851, of which the earlier sheets (containing that exposition) had been in print some months before my paper was read at the Royal Society.

It is obvious, therefore, that in these writings I can have in no degree profited by Dr. WATTERS' thesis, which was not published until some months after the appearance of my memoir in the Philosophical Transactions. And whatever I have since written on the subject has been but a

* We very willingly insert this communication, in compliance with Dr. CARPENTER'S request. But in justice to ourselves we must remark that, when publishing the article of Dr. WATTERS to which this letter refers, we did not (and do not now) understand that he called Dr. CARPENTER'S reputation for truth and honesty in question. Nor yet do we think the latter quite correct in supposing that Dr. WATTERS prefers a claim "as an originator of the doctrine that the so-called vital forces are correlated to the physical." Being somewhat acquainted with Dr. W.'s views, we feel safe in saying that he does not, and never did, subscribe to the "Correlation Theory" as generally taught; that he does not claim priority in any of those views developed in the celebrated memoir in the Philosophical Transactions of 1850, but asserts Dr. CARPENTER to have "recently" used arguments in many respects identical with his own,—an assertion which, of course, it is not our province to substantiate.—ED.

279



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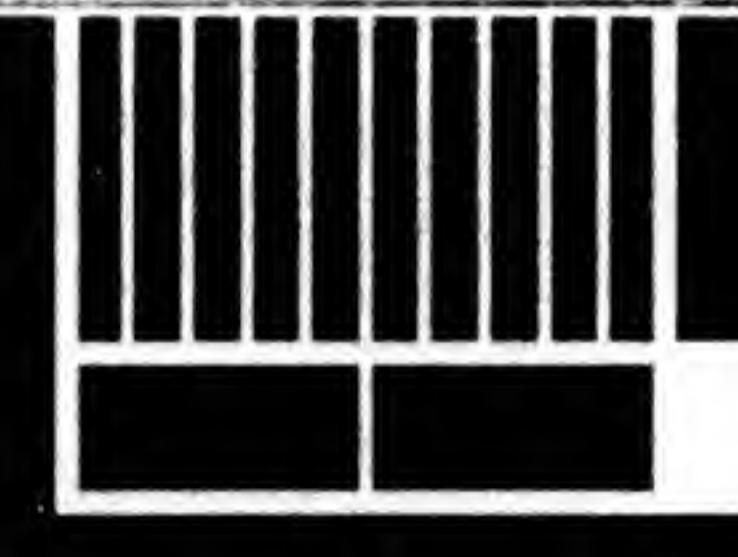
and we have received a perfect shower of announcements. The British press, too, has issued a large number of monographs on all branches. Our advices from Germany are a little behind hand, as may be noticed in our report.

Anatomy and Physiology.—HENLE's comprehensive work on Anatomy is approaching completion as fast as can be expected, in view of the enormous scope and detail of the treatise. The last fasciculus issued treats of Angiology, and presents the usual features, among which the excellent illustrations in wood, printed in two colors, are certainly the most conspicuous. The well-known *Manual of Dissection* by LUTHER HOLDEN, the lecturer on Anatomy at St. Bartholomew's, has been republished by R. M. DeWitt, N. Y.

Dr. RUEDINGER of Munich, has issued an anatomical work on the cranial nerves of man, illustrated by 46 figures on steel after photographs, on 14 plates; 68 pp. of text in 4to. *The Anatomy and Histology of the Human Eye*, by Prof. METZ, of Cleveland, 12mo., is in press in the office of the Medical and Surgical Reporter, Philadelphia. A recent volume of the Biblioth. des sciences naturelles is the work of Prof. ROBIN: *Anatomie microscopique des éléments anatomiques des épithéliums; anatomie et physiologie comparées.*

A few French monographs on physiological subjects are presented: BÉCHAMP, *De la circulation du carbone dans la nature*, etc., being the

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Phylloactis

Cambridge Bot. Gard.

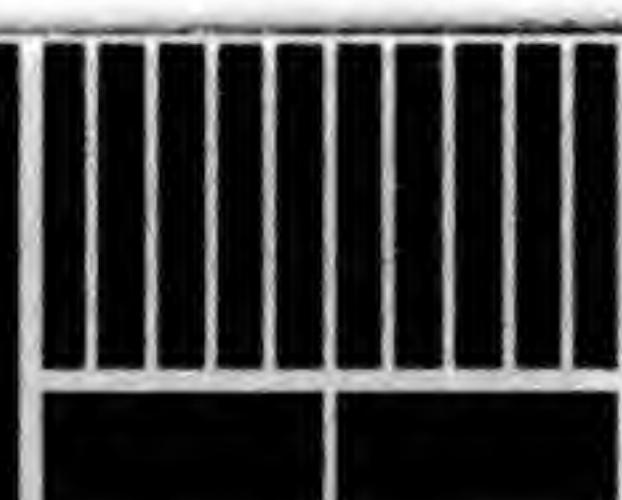
Oct 10 1876

most of the seeds had germinated
some even unfolded the cotyledons
and thrown off the testa; radicle
over 1 inch long - rooting in the
pulp of the radicle



2162

abt 10-12
seeds on
rough
purple fruit



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Physostigmine

Cocaine

gressive failure of the heart's action in inanition, than of hoping for a permanent good result, I injected the two-hundred-and-fortieth of a grain of sulphate of atropia into the arm of an infant ten weeks old, at a time when, excepting a few beats now and then, the pulse was imperceptible at the wrist, and the cardiac systoles only 80. Within four minutes, the pulse rose to 100, and each beat was quite perceptible at the wrist. In eight minutes, it had increased to one hundred and ten, and was quite regular and distinct. The stimulant continued for the next three hours; and at the end of this time the pulse was too, of good volume, and of sufficient force to bear compression without obliteration. The respiration remained unaltered, and the pupils dilated from one-twelfth to one-seventh of an inch. The stimulant effect upon the pulse continued to within half an hour of the death of the child, five hours and a half after the injection of the atropia.

As a *diuretic*, belladonna may be used in cases of *suppression of urine*, whether accompanied by uræmic symptoms or not. As both the sluggish circulation and the torpid kidney are simultaneously aroused by the medicine, there is ground for expecting a restoration of the renal secretion.

In *acute nephritis*, we may hope for beneficial results from the use of belladonna, which, coming in contact with the irritated and congested organ, will doubtless calm the nervous irritation, and at the same time contract the dilated bloodvessels. I am at the present time busily employed in determining the effect of its operation in congested and inflammatory kidney; and, so far as my experience



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given, there will be superadded a fluttering sensation in the cardiac region; slight delirium, manifested by picking and other motions of the hands and fingers in the air, as if they were in contact with real objects; muttering and smiling; staggering, or complete inability to walk.

The same symptoms, including *acceleration* of the pulse, follow the administration of belladonna or its active principle by the alimentary canal. . . . It is clear, first, that belladonna has no action on the vagus nerve; and secondly, that its effects are precisely the same, whether it be administered by the skin or by the stomach.

. . . The kidneys are active in the elimination of atropia from the minute when it enters the blood until it is entirely removed from the system. In the case of a full medicinal dose, about two hours are required for this purpose. Availing myself of its dilating action upon the eye, I have repeatedly demonstrated the presence of atropia in the urines of different individuals, eighteen, nineteen, and twenty minutes after the subcutaneous injection of the forty-eighth and even the ninety-sixth of a grain of sulphate of atropia. . . . In ten patients, the urines secreted immediately before and during the operation of the medicine were analyzed. The result was uniform. During the action of the belladonna, the urea and the sulphates and phosphates were increased; and, as a rule, the chlorine was proportionately diminished. The increase of the urea was disproportionate to, and considerably less than, that of the phosphates and sulphates.

. . . Atropia, as we have seen, is in the true sense of the word a *diuretic*, and a more powerful one



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"*Cactus alatus*"

June 16 1870

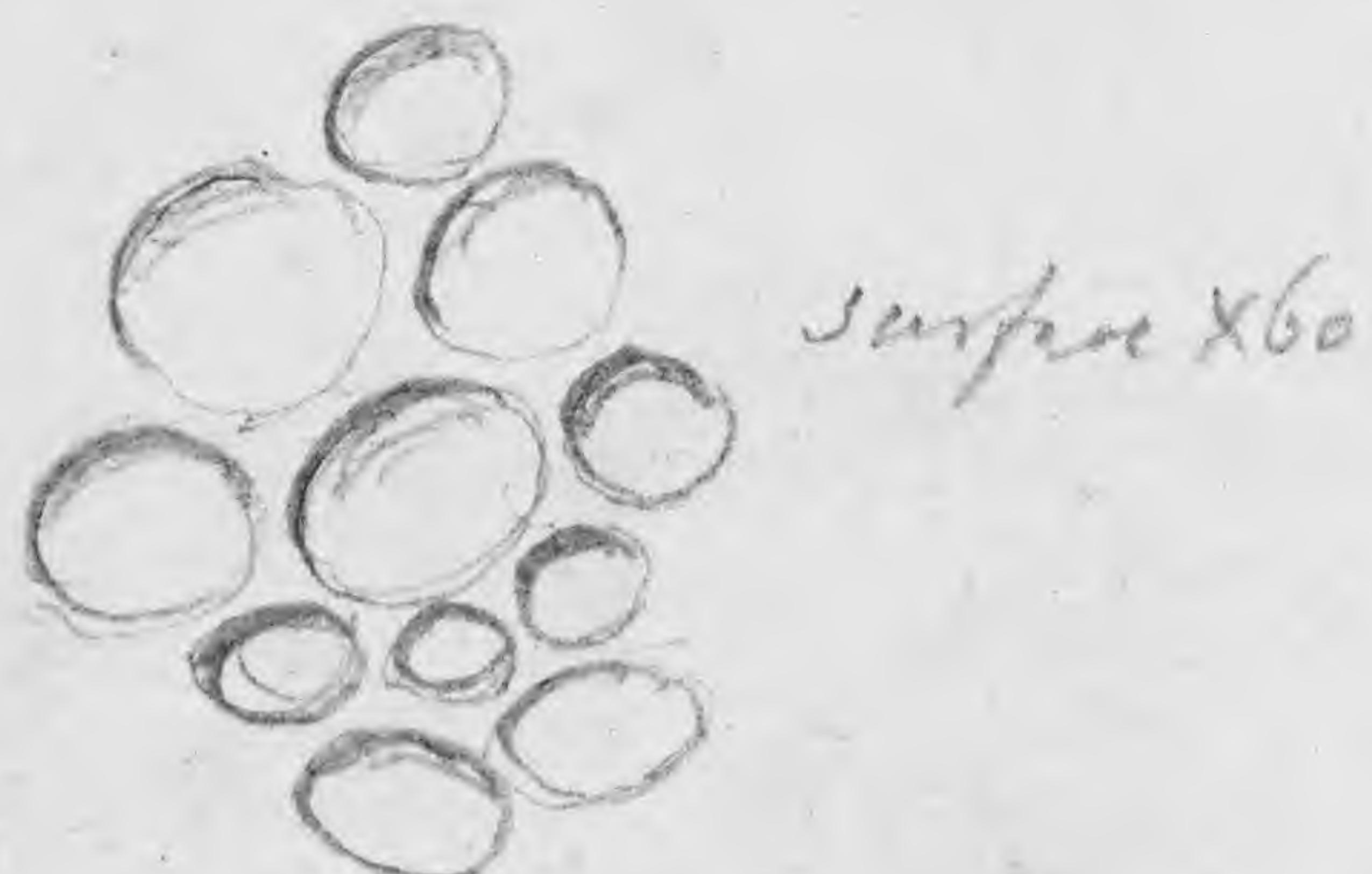
Peru Ruiz

2163

ex Herb. Ruiz in Herb reg. Boliviensis 1858



seed much smaller
than in the New Granada
specimen



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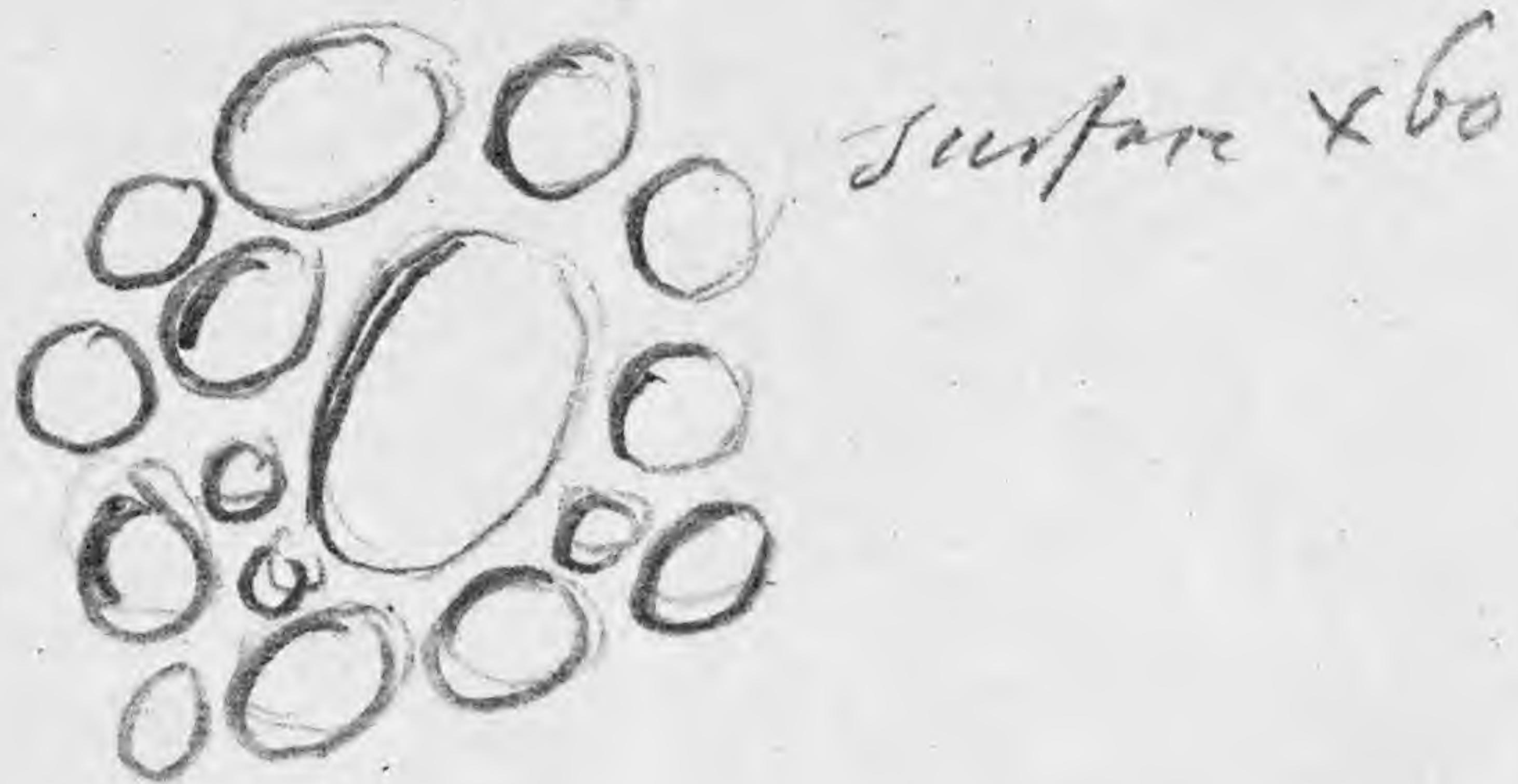
Cereus Phyllanthus

June 18 1870

Para', Sibes leg 1832

ex H. Martius 1869

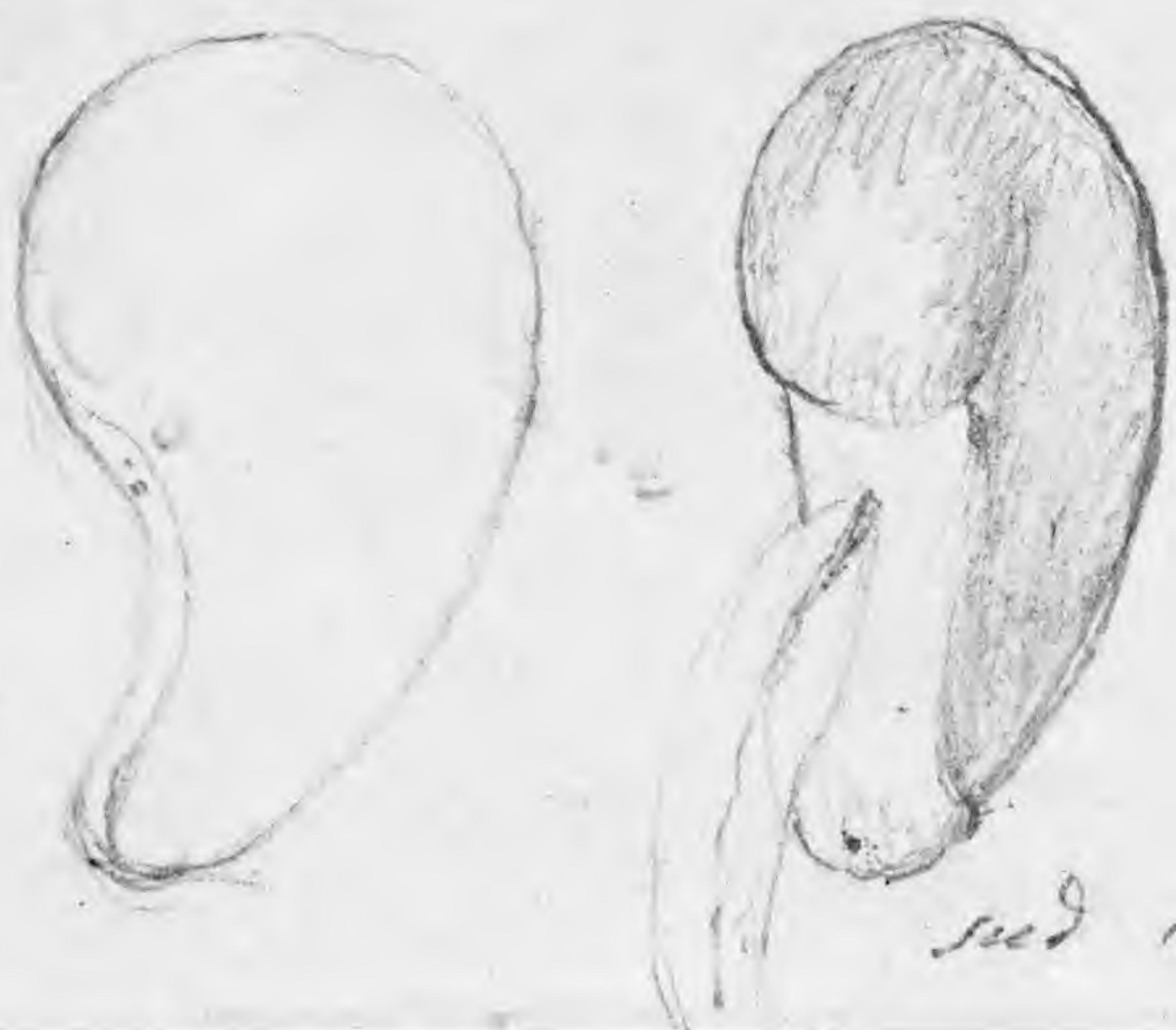
$\times 8$



Cactus Phyllanthus, Porto Ruiz, Sello

in HB. reg. Bonpl. 1869

seeds unripe, compressed, soft
but apparently full grown



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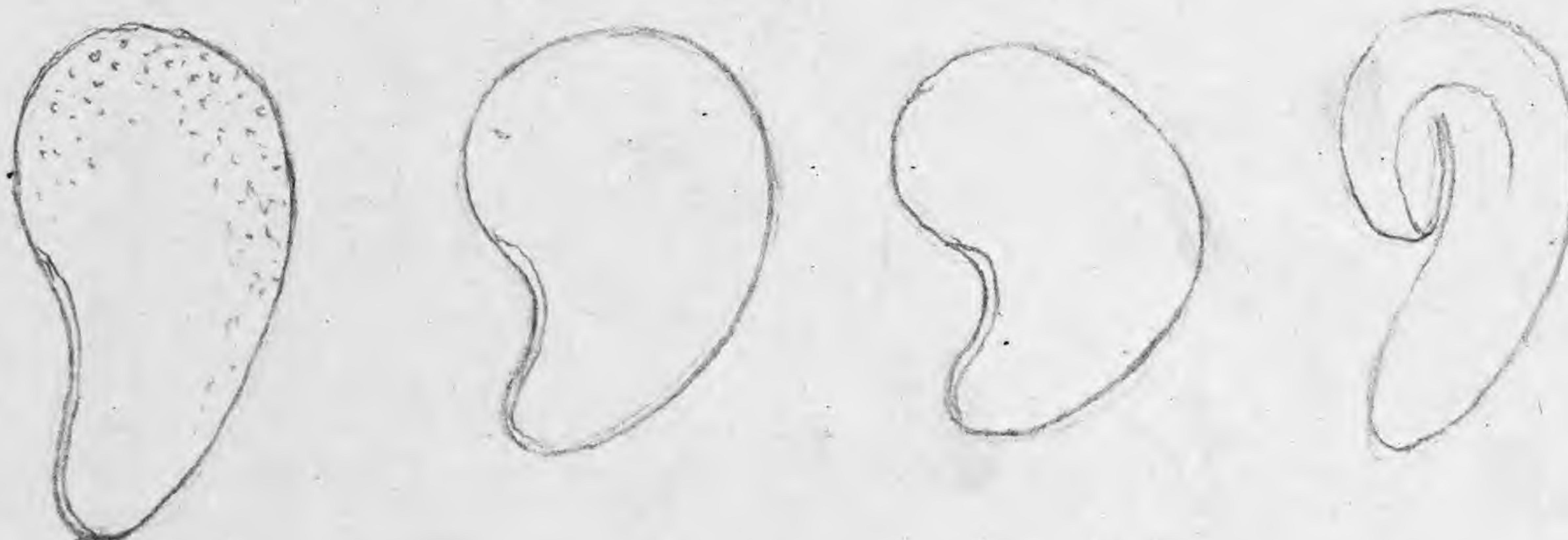
Cerens Phyllanthus

June 16 1870

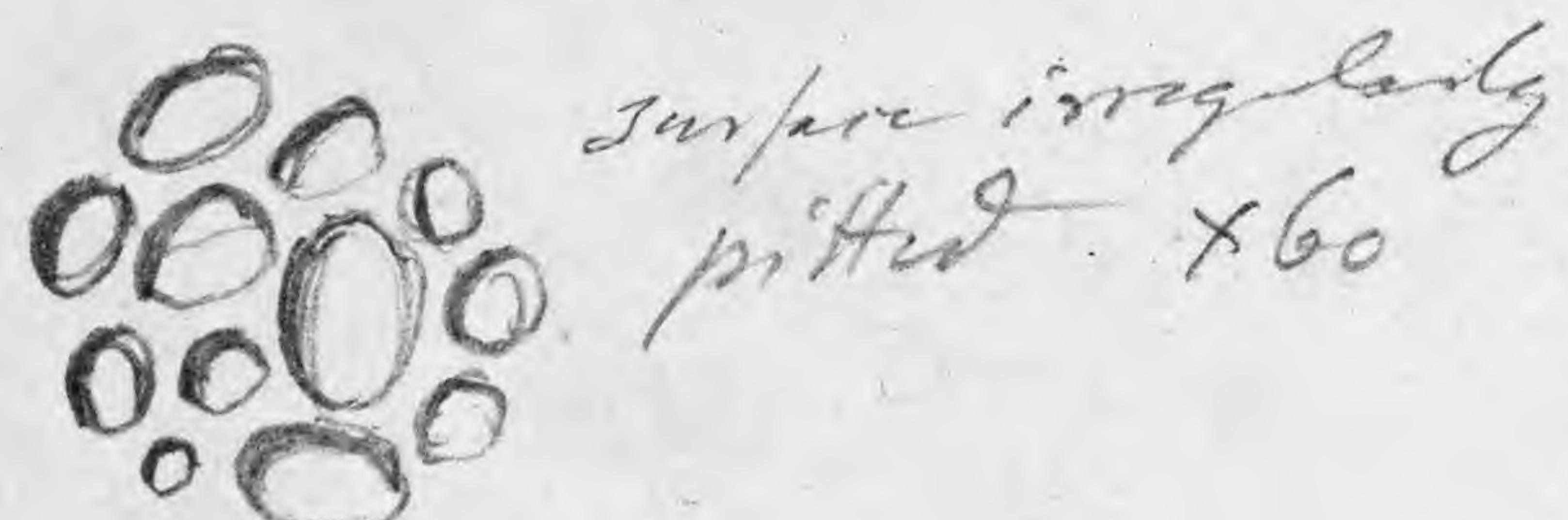
Paramaribo, Surinam, Wallsschlaeger, in H. Martius
flos 8 pollinans gracillimus

München 1857

x 8



2165



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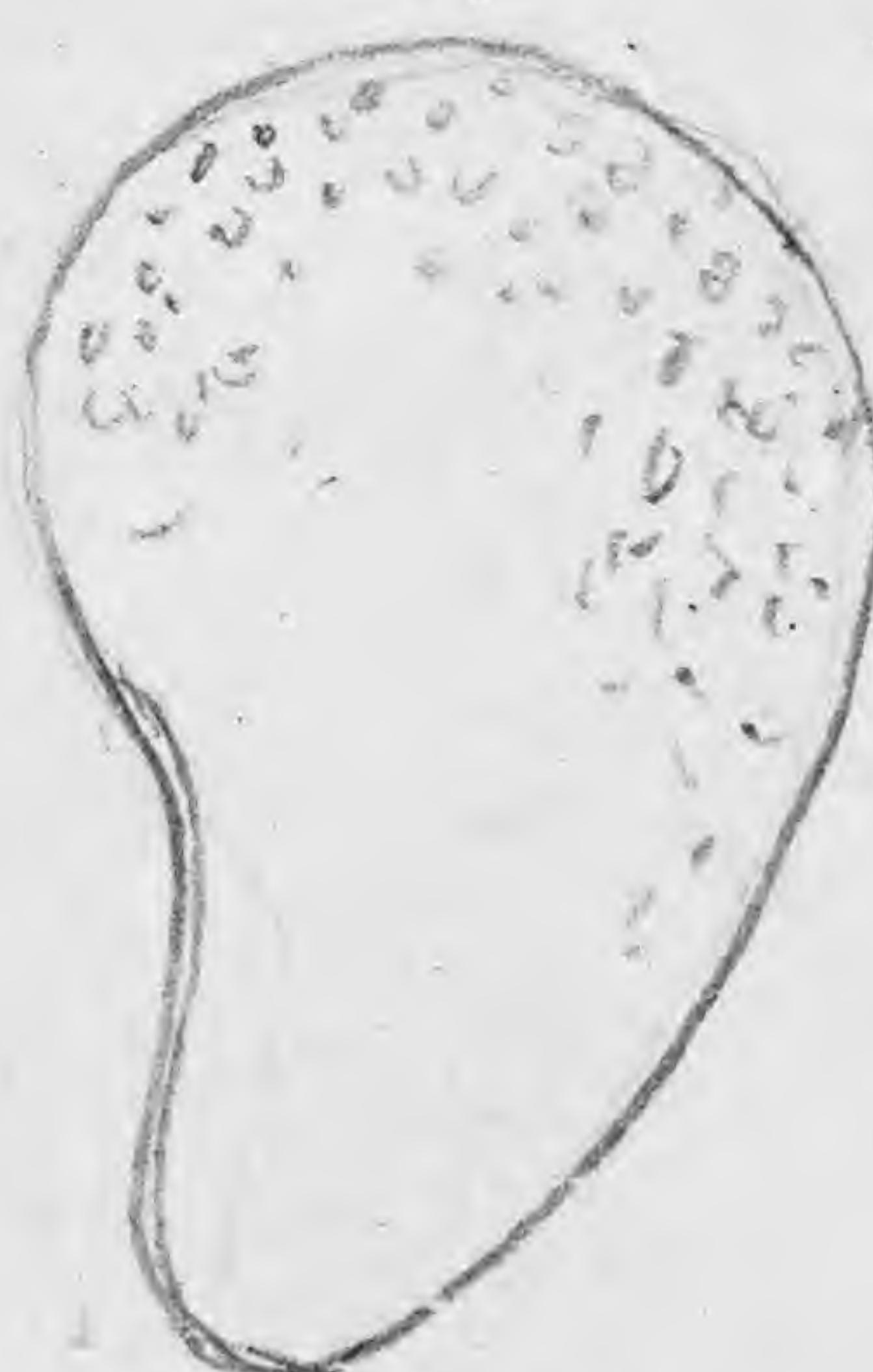
Cerros Phyllanthus DC.

June 16 1870

Hork. Cat. Viadobon 1834

no² 1858

x8



seed a little smaller than
those from New Granada
and Darwin. Tip of
Cotyledons curved outward
in two seeds examined

2166



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June 16 1870

Phyllanthus

Isthmus of Darien, A Schott leg 1858

seed exactly like Goudot's New Granada plant, but only
embryos examined singularly involute

2167



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Phyllococtus

June 16 1870

x8

New Granada, Justin Gaudot 1844

ex Mus. Paris 1869



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Phyllocaulus Jenkinsii (Hybris)

June 18 1870

(alato - spinosissimum ?)

$\times 8$



Hort Goebel, St Louis, Aug. 1848

2169

○○○ surface $\times 60$
○○○○ irregularly
○○○○ pitted
○○○○



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Phyllocactus

June 18 1870

Mexico, Kansinski, ex Hb Monach.

Nov. 1857

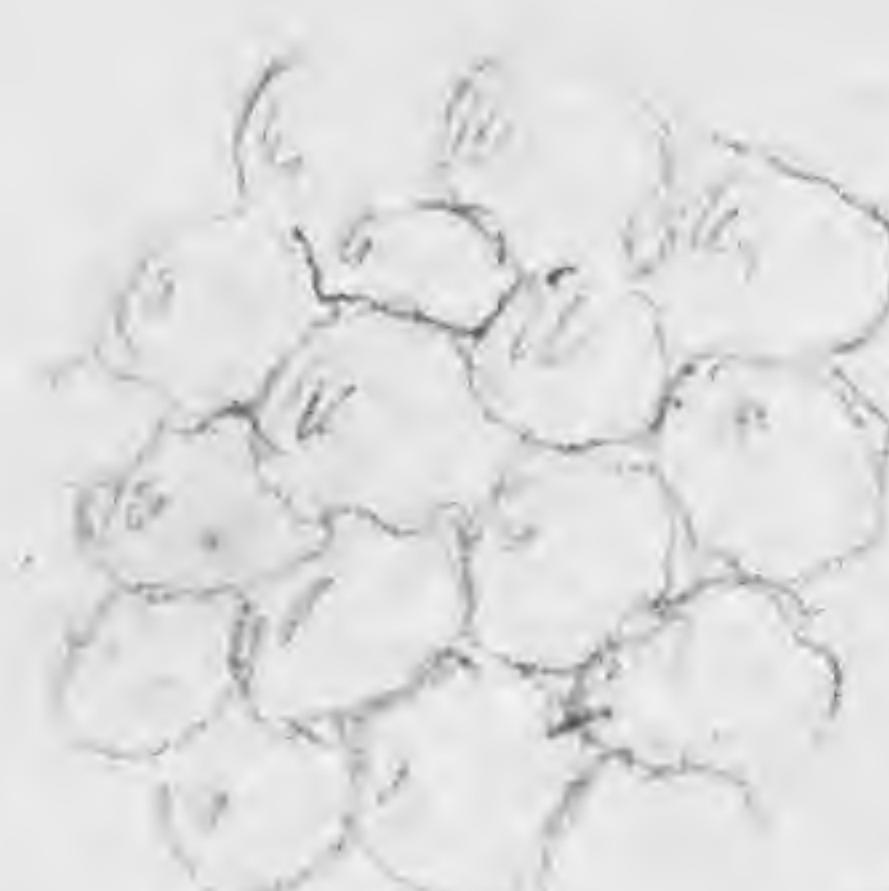
$\times 8$

hilum
linear



probably C. Ackermannii
but sepals of ovary with spinules
in axils

a hybrid?



$\times 60$
surface shining
slightly and almost
indistinctly reticulate
impresso

2170



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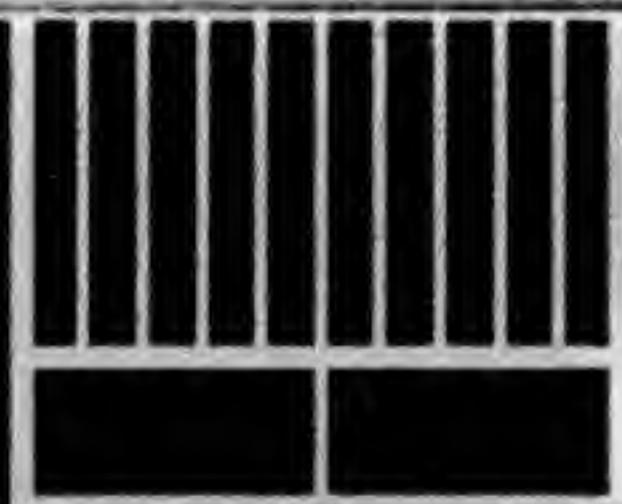
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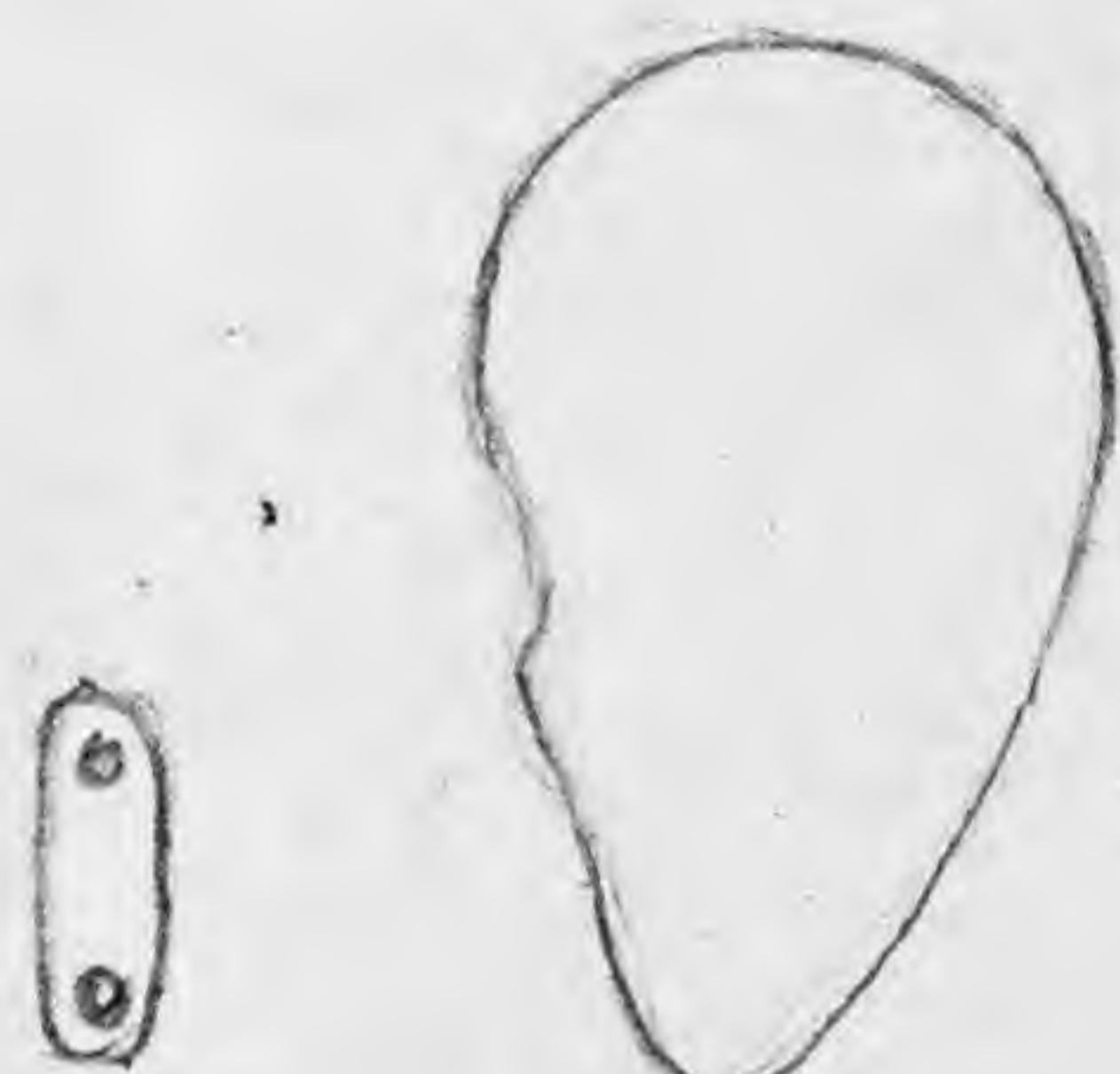
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June 18 1870
Phyllocactus crenatus
"fertilized with Pollen of *Cer. speciosissimum*"
Jacobi, Cologne 1857

$\times 8$



another seed said to have been born
by a plant raised from these seeds

Hybrid: mother *Ph. crenatus*?
pater *Cer. speciosiss.*?

is exactly the same, or very slightly
larger

surface $\times 60$
lightly & irregularly
imprised dotted

2171



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Ceratodon alatus

June 18 1879

"fertilized with *Ceratodon rosaceus*"

Berlin 1868, Gustav A. Berger

$\times 8$



surface at 8th plow

$\times 60$



pitted, pits
sometimes confluent

...

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